Maryland
Hospital Association

REQUEST FOR COMMENT:

Recommendations of the Urinary Tract Infection Definition Workgroup

Background

The Maryland Hospital Association (MHA) has convened a series of workgroups[1] to address the clinical criteria used to define certain diagnoses and is seeking comment on the proposed definition for Urinary Tract Infection (UTI). As Maryland's hospitals work to meet the 30% reduction in complications required under the new hospital waiver and the annual targets outlined within the Maryland Hospital Acquired Condition (MHAC) payment policy,[2] it has become apparent that variability in the criteria used across hospitals is impacting the ability to accurately quantify the improvement that has occurred as well as effectively collaborate to further reduce complications.[3] For these reasons, hospital leaders requested that MHA convene hospital representatives and work towards consensus definitions.

This workgroup's proposed criteria is not intended to restrict provider judgment when diagnosing a patient, but rather to inform decision making when determining whether or not a patient truly has a UTI. These clinical definitions will not replace provider documentation but will instead help ensure that documentation accurately reflects a diagnosis of UTI. Coders will continue to use provider documentation as the source of the coded diagnosis.

Process

The UTI Workgroup is comprised of physicians, non-physician clinicians, infection preventionists, and documentation and coding professionals from a cross-section of Maryland's community and teaching hospitals and health systems.

[1] Four workgroups will be convened on urinary tract infections, renal, obstetric and respiratory complications
[2] The statewide reduction target for 2015 is 7% comparing FY2014 to CY2015 risk adjusted PPC rates; The proposed amount at risk for the MHAC program is 3% of inpatient revenue
[3] Provider documentation of diagnoses drives coded diagnoses. If hospitals and providers use consistent criteria to define a urinary tract infection, it will provide the necessary 'level setting' from which to truly measure performance

To arrive at a proposed definition, the workgroup, over a series of meetings,[4] based their deliberations on the following:

- *Current practice at Maryland hospitals*
  - Medical and Quality leads at all Maryland acute care hospitals were asked to submit the policies used at their facilities to define UTIs
- *Relevant literature and published guidelines by academic bodies or government agencies including, but not limited to the CDC and IDSA*
- *Expertise of workgroup members*

Representatives from the various health systems informally validated this scoring tool in patients that were coded as having had a UTI and found that some patients were being treated for a UTI when they would not have met this diagnostic criteria.

On behalf of the workgroup, MHA is seeking comment on the proposed criteria for UTI as detailed below. The workgroup will reconvene on February 17th to consider this feedback and make changes as necessary before finalizing our recommendations. It is the workgroup's goal that its finalized definition for UTI be considered by each hospital's Medical Executive Committee for adoption. We ask that medical and quality leadership review this document with a hospital's medical staff, quality improvement team, infection prevention staff, coding and documentation professionals, and any other applicable stakeholders.

Proposed UTI Definition Criteria

The workgroup concluded that the most straightforward way to define a UTI would be to craft a scoring system that assigns points for certain indications. A clinical scenario will be considered a UTI when a particular point threshold has been reached. The points are weighted to assign higher points to more significant findings. The need for a scoring system was agreed upon by the workgroup as a positive alternative to enumerating the multiple combinations of signs, symptoms, and lab values that might constitute a positive UTI diagnosis.

[4] Meeting material is available at http://www.mhaonline.org/quality

Scoring Tool to Identify a UTI

Indication	Points
Temperature[1,2] ≥38 or ≤36	**1** For responsive patients or **2** for obtunded patients
Resident of Long Term Care Facility[3]	**-1**
Costovertebral Angle Pain or Tenderness	**2**
Suprapubic Tenderness	**1**
Urinary Frequency and/or Urinary Urgency and/or Dysuria	**1**
Negative Urinalysis	**-1**
Positive Urinalysis	**2**
Negative, Absent or Contaminated Urine Culture	**0**
Positive Urine Culture	**2**

Threshold Point Total to Diagnose a UTI is 4

1. When other potential sources for the fever have been ruled out
2. Patients over 65 may not mount a fever response to infection
3. Includes permanent residents of long term care facilities such as nursing homes, but does not include temporary stays in sub-acute facilities such as Skilled Nursing Facilities (SNFs) or rehabilitation centers

Caveats:

- The tool is valid only for patients without an indwelling urinary catheter or other type of instrumentation of the genitourinary tract, such as suprapubic catheters, ileal conduits or percutaneous nephrostomy tubes. Patients with condom catheters are not excluded, but care must be taken to collect the urinary sample correctly.

- The above scoring tool may not be valid for certain patient populations, including those that are immunocompromised or those that have brain or spinal cord injuries.

Indication Definitions:

- A 'Positive' Urinalysis is defined as having >10 WBC/HPF
  - The presence of leukocyte esterase and/or nitrites may or may not be indicative of a UTI
  - A 'Positive' Urine Culture is defined as having ≤ 2 non-yeast organisms in a quantity ≥10^5 CFU/ml (≥100,000 CFU/ml)

- *Contaminated Samples:*
  - A sample is contaminated if it contains ≥ 3 organisms, or is identified as having skin flora, mixed enteric flora, or urogenital flora present

References

Centers for Disease Control and Prevention. *Urinary Tract Infection (Catheter-Associated Urinary Tract Infection [CAUTI] and Non-Catheter-Associated Urinary Tract Infection [UTI]) and Other Urinary System Infection [USI]),* 2015

Hooton et al., *Diagnosis, Prevention, and Treatment of Catheter- Associated Urinary Tract Infection in Adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America*; IDSA Guidelines, 2010

Lindsay et al., *Infectious Diseases Society of America Guidelines for the Diagnosis and Treatment of Asymptomatic Bacteriuria in Adults;* IDSA Guidelines, 2005

Instructions for Submitting Comments

Please utilize the 'track changes' function to make line-item comments or suggestions. Additionally, the 'General Comments' section on the next page can be used to write longer notes and provide general feedback. Please refer to a line number when writing comments. The workgroup is seeking both clinical feedback as well as comments that address feasibility or other practical considerations regarding implementation. Please submit your feedback to Justin Ziombra at jziombra@mhaonline.org by **Friday, February 13th.**

General Comments